

## Claims

1. A nucleic acid sequence encoding a polypeptide having starch branching enzyme (SBE) activity, ~~the~~ encoded polypeptide comprising at least an effective portion of the amino acid sequence shown in Figure 4 or Figure 13.
2. A nucleic acid sequence according to claim 1, comprising nucleotides 21-2531 of the nucleic acid sequence shown in Figure 4, or a functionally equivalent nucleotide sequence which hybridises under stringent hybridisation conditions with the nucleic acid sequence shown in Figure 4.
3. A nucleic acid sequence according to claim 1, comprising nucleotides 131-2677 of the nucleic acid sequence shown in Figure 13, or a functionally equivalent sequence which hybridises under stringent hybridisation conditions with the nucleic acid sequence shown in Figure 13.
4. A nucleic acid sequence according to any one of claims 1, 2 or 3 comprising a 5' and/or a 3' untranslated region.
5. A nucleic acid sequence according to any one of the preceding claims, encoding a polypeptide having the amino acid sequence NSKH at about residue 697.
6. A nucleic acid sequence comprising at least 200bp and exhibiting at least 88% sequence identity with the corresponding region of the DNA sequence shown in Figures 4, 9, 10 or 13, operably linked in the sense or anti-sense orientation to a promoter operable in plants.
7. A nucleic acid sequence according ~~to~~ claim 6, comprising at least 300-600bp.
8. A sequence according to claim 6 or 7, comprising a 5' and/or 3' untranslated region.

9. A sequence according to claim 8, comprising nucleotides 688-1044 of the sequence shown in Figure 9, and/or nucleotides 1507-1900 of the sequence shown in Figure 10.
10. A sequence according to claim 6, comprising the nucleotide sequence shown in Figure 10.
11. A replicable nucleic acid construct comprising a nucleic acid sequence according to any one of the preceding claims.
12. A polypeptide having SBE activity and comprising an effective portion of the amino acid sequence shown in Figure 4 or Figure 13.
13. A polypeptide according to claim 12, in substantial isolation from other polypeptides.
14. A polypeptide according to claim 12 or 13, having the amino acid sequence NSKH at about position 697.
15. A method of modifying starch *in vitro*, the method comprising treating starch to be modified under suitable conditions with an effective amount of a polypeptide according to any one of claims 12, 13 or 14.
16. A method of altering a plant host cell, the method comprising introducing into the cell a nucleic acid sequence comprising at least 200bp and exhibiting at least 88% sequence identity with the corresponding region of the DNA sequence shown in Figures 4, 9, 10 or 13, operably linked in the sense or anti-sense orientation to a suitable promoter active in the host cell, and causing transcription of the introduced nucleotide sequence, said transcript and/or the translation product thereof being sufficient to interfere with the expression of a homologous gene naturally present in the host cell, which homologous gene encodes a polypeptide having SBE activity.
17. A method according to claim 16, wherein the host cell is from a cassava, banana, potato, pea, tomato, maize, wheat, barley, oat, sweet potato or rice plant.

18. A method according to claim 16 or 17, comprising the introduction of one or more further nucleic acid sequences, operably linked in the sense or anti-sense orientation to a suitable promoter active in the host cell, and causing transcription of the one or more further nucleic acid sequences, said transcripts and/or translation products thereof being sufficient to interfere with the expression of homologous gene(s) present in the host cell.

19. A method according to claim 18, wherein the one or more further nucleic acid sequences interfere with the expression of a gene involved in starch biosynthesis.

20. A method according to claim 18 or 19, wherein the further nucleic acid sequence comprises at least part of an SBE I gene.

21. A method according to claim 20, wherein the further nucleic acid sequence comprises at least part of the cassava SBE I gene.

22. A method according to any one of claims 16 - 21, wherein the host cell is selected from one of the following: cassava, banana, potato, pea, tomato, maize, wheat, barley, oat, sweet potato or rice.

23. A method according to any one of claims 16-22, wherein the altered host cell gives rise to starch having different properties compared to starch from an unaltered cell.

24. A method according to any one of claims 16-23, further comprising the step of growing the altered host cell into a plant or plantlet.

25. A method of obtaining starch having altered properties, comprising growing a plant from an altered host cell according to the method of claim 24, and extracting the starch therefrom.

26. A plant or plant cell into which has been artificially introduced a nucleic acid sequence comprising at least 200bp and exhibiting at least 88% sequence identity with the corresponding region of the DNA sequence shown in Figures 4, 9, 10 or 13, operably

linked in the sense or anti-sense orientation to a promoter operable in plants, or the progeny thereof.

27. A plant according to claim 24, altered by the method of any one of claims 16-22.
28. Starch obtainable from an altered plant according to claim 26 or 27, having altered properties compared to starch extracted from an equivalent but unaltered plant.
29. Starch obtained from an altered plant according to claim 26 or 27, having altered properties compared to starch extracted from an equivalent but unaltered plant.
30. Starch according to claim 28 or 29 obtained from an altered plant selected from the group consisting of:- cassava, banana, potato, pea, tomato, maize, wheat, barley, oat, sweet potato and rice plants.
31. Starch according to any one of claims 28, 29 or 30, having increased amylose content compared to starch extracted from an equivalent but unaltered plant.

28. Starch obtainable from an altered plant according to claim 26 or 27, having altered properties compared to starch extracted from an equivalent but unaltered plant.

29. Starch obtained from an altered plant according to claim 26 or 27, having altered properties compared to starch extracted from an equivalent but unaltered plant.

30. Starch according to claim 28 or 29 obtained from an altered plant selected from the group consisting of:- cassava, banana, potato, pea, tomato, maize, wheat, barley, oat, sweet potato and rice plants.

31. Starch according to any one of claims 28, 29 or 30, having increased amylose content compared to starch extracted from an equivalent but unaltered plant.